

Miesen Silt Loam 82-ID-0566 (82ID-009-13)

Classification: coarse-silty, mixed, frigid Cumolic Ultic Haploxerolls.

General Site Characteristics

Location: Benewah County, Idaho; approx. 3 miles W of St. Joe, Idaho; 225 feet N & 75 feet W of SE corner of sec. 14, T. 46N., R. 1W.

Forest:

Area: St Joe SSA

Described By/Date: Soil Conservation Service personnel May 28, 1982

Parent Rock/Material: alluvial river sediments

Habitat Type: clover, canas, timothy, other grasses and forbes.

Topography: level

Landform: river flood plain

Weathering:

Formation Name:

Slope: 2 percent

Aspect:

Elevation: 2134 feet

Soil Depth:

Eff. Rooting Depth:

Litter Type:

Surface Rock:

Climate:

Precipitation: 31 inches

Erosion:

Infiltration:

Permeability: moderate

Storage:

Drainage: somewhat poorly

Air Temp:

Soil Temp at 20 inches:

Salt/Alkal:

Remarks:

Pedon Description

E 0-1 cm. Light gray continuous volcanic ash layer from Mt. St. Helen's May 1980.

A1 1-20 cm. Grayish brown (10YR 5/2) silt loam, very dark brown (10YR 2/2) moist; weak fine and medium subangular blocky structure parting to moderate fine and medium granular structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.3; many very fine and fine, common medium roots; many very fine and fine and few medium tubular and interstitial pores; clear wavy boundary.

A2 20-66 cm. Grayish brown (10YR 5/2) silt loam, very dark brown (10YR 2/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.3; many very fine, common fine and medium roots; many very fine, common fine and medium tubular and interstitial pores; abrupt wavy boundary.

A3 66-81 cm. Grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; few fine organic stains very dark brown (10YR 2/2); moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.4; common very fine and fine, few medium roots; common very fine, few fine tubular and interstitial pores; gradual wavy boundary.

A4 81-114 cm. Brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.5; few very fine roots; few very fine and fine tubular pores; common very fine mica flakes; mottles dark grayish brown (10YR 4/2), very c, i, f, 1, 1, f dark yellowish brown (10YR 4/4) moist; few fine and medium silt masses dark yellowish brown (10YR 4/4) moist; clear wavy boundary.

AB 114-140 cm. Pale brown (10YR 6/3) silt loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; moderately acid pH 5.6; few very fine roots; few very fine tubular pores; mottles dark grayish brown (10YR 4/2), very dark grayish brown (10YR 3/2), and dark yellowish brown (10YR 4/4) moist; c, i, f (dark brown to brown (10YR 4/3) m, 2, 3 d mottles; common very fine mica flakes; clear wavy boundary.

Bw 140-152 cm. Pale brown (10YR 6/3) silt loam, dark brown to brown (10YR 4/3) moist; weak coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; moderately acid pH 5.7; few very fine roots; few very fine and fine tubular pores; common very fine mica flakes; few fine organic stains very dark brown (10YR 2/2); mottles brown (10YR 5/3), very dark brown (10YR 2/2), dark brown to brown (10YR 4/3); c, i, f; 4(m, 3, p yellowish brown (10YR 5/6); few fine pale brown (10YR 6/3) mottles.

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Date: June 1984

Sample No.	Horizon	Depth	pH paste	EC $\times 10^3$	% Water at Saturation	Available P	Sesquioxides				Spodic
							Di-Citrate	Extract	Pyrophosphate	Extract	
							Fe	Al	Fe	Al	
		cm		mhos/cm		ppm					
	E	0- 1	NS	NS	NS	NS	NS	NS	NS	NS	NS
1	A1	1- 28	5.3	0.26	66	0.7	1.17	0.27	0.48	0.28	no
2	A2	28- 66	5.3	0.16	65	1.2	1.10	0.29	0.52	0.31	no
3	A3	66- 81	5.4	0.13	62	1.7	1.16	0.28	0.48	0.25	no
4	A4	81-114	5.5	0.09	61	0.0	1.14	0.23	0.45	0.21	no
5	AB	114-140	5.6	0.08	56	0.2	1.09	0.18	0.37	0.15	no
6	Bw	140-152	5.7	0.10	49	3.1	1.01	0.14	0.28	0.12	no

Sample No.	Exchangeable Ions				Ext. Acidity	CLC	Base	OM	OC	N	C:N	Soil	NaF pH
	Ca	Mg	Na	K	H	Saturation					Fraction		
	meq/100 gms						%		%		ratio		
	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
1	8.6	2.0	0.1	0.2	18.8	25.0	37	8.46	4.92	0.341	14	1.00	8.9
2	7.1	0.8	0.1	0.1	19.6	21.2	29	5.16	3.00	0.222	14	1.00	9.4
3	5.1	0.8	0.1	0.1	16.6	18.8	27	3.92	2.28	0.155	15	1.00	9.4
4	5.4	0.8	0.1	0.1	15.8	15.5	29	3.04	1.77	0.112	16	1.00	9.4
5	5.1	0.8	0.1	0.1	13.0	13.3	32	2.20	1.28	0.071	18	1.00	9.2
6	5.4	0.5	0.1	0.1	9.5	10.6	39	1.52	0.80	0.055	16	1.00	9.1

Remarks: CEC's were leached with 10% acidified NaCl.
CEC's and nitrogens were run by steam distillation.
Extractable cations were run on the Jarrell Ash atomic absorption.
NS - no sample

Analysis by: Debbie Eisinger

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Date: May 1984

Particle Size Distribution (mm)								Gravel & Stone			
Depth	VCS	CS	MS	FS	VFS	TS	TSi	TC	>2 mm	Textural	
	2-1.0	1-0.5	0.5-0.25	0.25-0.1	0.1-0.05	2-0.05	0.05-0.002	<0.002	wt.	vol.	Classes
cm	%								%		
0- 1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
1-20	0.71	0.16	0.17	1.37	3.82	6.23	76.40	17.37	none		Silt loam
20- 66	0.07	0.06	0.07	1.31	4.95	6.46	75.88	17.66	none		Silt loam
66- 81	0.03	0.04	0.06	1.92	7.41	9.46	74.87	15.67	none		Silt loam
81-114	0.02	0.02	0.05	1.84	8.89	10.82	74.48	14.70	none		Silt loam
114-140	0.02	0.03	0.05	2.57	11.39	14.06	73.79	12.15	none		Silt loam
140-152	0.01	0.02	0.04	4.65	14.71	19.44	70.70	9.86	none		Silt loam
Silt Size Distribution (mm)						Water Content		Liquid	Plastic	Plastic	
Depth	CoSi	Msi	Fsi	Bulk Density		1/3	15	Limit	Limit	Index	
	0.05-0.02	0.02-0.005	0.005-0.002	Clod	Core	Bar	Bar				
cm	%			g/cc		%		%			
0- 1						NS	NS				
1- 20						47.2	19.3				
20- 66						47.0	16.5				
66- 81						47.2	15.0				
81-114						47.8	13.6				
114-140						45.3	11.5				
140-152						39.6	17.1				

Remarks: Samples were run by the centrifuge method, 5% sodium hexametaphosphate added, sonified, and carbonates were not removed.
NS - no sample

Analysis by: Anita L. Falen